DYNAMIC CAN BUS SYSTEM CONFIGURATION AND MESSAGING

Abstract

A method and system for communicating over a controller area network

5 (CAN) bus (14 – 22) enables messages to be routed from a controlling software

component (46 – 50) to one or more processor-enabled peripheral devices (24 – 44)

on a discrete basis over the CAN bus (14 – 22) to control the plurality of processor-

enabled peripheral devices (24 – 44). By overlaying a hardware device protocol on a

CAN bus protocol to realize CAN bus messaging, the controlling software

10 components (46 – 50) can discretely communicate with the external processor-

controlled peripheral devices (24 – 44) using the multiple multi-drop CAN busses (14

– 22). In addition, a method and system for handling registration of a processor-

enabled peripheral device (24 – 44) with a controlling software component (46 – 50)

includes creating a logical connection between the processor-enabled peripheral

15 device (24 – 44) and the controlling software component (46 – 50) and breaking the

logical connection between the processor-enabled peripheral device (24 – 44) and the

controlling software component (46 – 50) if the processor-enabled peripheral device

(24 – 44) is removed and re-introduced or if the controlling software component (46 –

50) is reset for re-registration purposes to provide plug-and-play capabilities and

20 dynamic registration of processor-enabled peripheral devices (24 – 44).